Recursive Data Structures: Trees
-- Binary Search Trees --

CS 2110: University of Virginia
Prof. Nada Basit

Lab Activity – Binary Search Trees

1. Download `BinaryTree.java` and `BinaryTreeNode.java`
2. Given the following sequence of integers, your task is to build a Binary Search Tree (BST). Each integer will be a data value in a node. **Input sequence:** **{6, 4, 3, 5, 8, 9, 1, 2}**
3. In the main method of `BinaryTreeNode.java` create these nodes
   - Use the Integer data type:
     ```
     BinaryTreeNode<Integer> n1 = new BinaryTreeNode<Integer>(6);
     ```
4. Create the connections using `setLeft()` & `setRight()`
5. When finished, take the root node (e.g. n1 – with data value 6) and call `toString()` to print out the result. If done correctly the **output should be:** **2, 1, 3, 5, 4, 9, 8, 6**
6. **SUBMIT**: your `BinaryTreeNode.java` file on Collab
   - Work with a partner, but submit individually